DOCUMENT RESUME

ED 170 437 UD 019 419

AUTHOR Slavin, Robert E.; Madden, Nancy C.
TITLE School Practices that Improve Race Relations: A Reanalysis. Report No. 264.
INSTITUTION Johns Hopkins Univ., Baltimore, Md. Center for Social Organization of Schools.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Oct 78
GRANT NIE-G-78-0210
NOTE 30p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Black Students; Caucasian Students; *Peer Relationship; *Race Relations; *Racial Attitudes; *School Integration; Secondary Education; Social Science Research; *Student Attitudes; Student Behavior; *Teacher Attitudes; Textbook Bias

ABSTRACT

This study, using extensive data collected by the Educational Testing Service in 1974, examines four categories of interventions that may influence interracial behaviors and attitudes in schools. The categories examined are: (1) attempts to change teacher or principal attitudes by means of workshops; (2) attempts to change student attitudes by providing minority history classes, portraying minorities in positive roles in textbooks and in school positions, and discussing race relations in class; (3) heterogeneous grouping, either within or between classes, and (4) attempts to change student behavior directly by assigning them to work and play in mixed-racial groups. The major finding of the study is that the fourth category, actual interaction among students, has by far the strongest positive influence on students' interracial attitudes and behaviors. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED170437

SCHOOL PRACTICES THAT IMPROVE RACE RELATIONS:

A REANALYSIS

Grant No. NIE-G-78-0210

Robert E. Slavin

Nancy C. Madden
American University

Report No. 264

October 1978

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Hollifield

Johns Hopkins Univ
CSOS

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Published by the Center for Social Organization of Schools, supported in part as a research and development center by funds from the United States National Institute of Education, Department of Health, Education and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the Institute should be inferred.

The Johns Hopkins University

Baltimore, Maryland

UD019419

Introductory Statement

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through four programs to achieve its objectives. The Policy Studies in School Desegregation program applies the basic theories of social organization of schools to study the internal conditions of desegregated schools, the feasibility of alternative desegregation policies, and the interrelation of school desegregation with other equity issues such as housing and job desegregation. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. It has produced a large-scale study of the effects of open schools, has developed Student Team Learning Instructional processes for teaching various subjects in elementary and secondary schools, and has produced a computerized system for school-wide attendance monitoring. The School Process and Career Development program is studying transitions from high school to post secondary institutions and the role of schooling in the development of career plans and the actualization of labor market outcomes. The Studies in Delinquency and School Environments program is examining the interaction of school environments, school experiences, and individual characteristics in relation to in-school and later-life delinquency.

This report, prepared by the Policy Studies in School Desegregation program, examines the effects of various school programs on race relations in secondary schools, and finds the most effective programs to be those that promote student interaction.

Abstract

This study, using extensive data collected by the Educational Testing Service in 1974, examines four categories of interventions that may influence interracial behaviors and attitudes in schools. The categories examined are (1) attempts to change teacher or principal attitudes by means of workshops; (2) attempts to change student attitudes by providing minority history classes, portraying minorities in positive roles in textbooks and in school positions, and discussing race relations in class; (3) heterogeneous grouping, either within or between classes, and (4) attempts to change student behaviors directly by assigning them to work and play in mixed-racial groups.

The major finding of the study is that the fourth category--actual interaction among students--has by far the strongest positive influence on students' interracial attitudes and behaviors.

Acknowledgments

The authors wish to thank the following individuals for their help with this work: Charles Thomas, James McPartland, Nancy Karweit, Carol Weinreich and Denise Daiger.

Advocates of school desegregation have always expressed the hope that students of different races attending school together would learn to get along with each other, and that the ultimate outcome of integrated schools would be a truly integrated society, without prejudice or interracial hostility (see, for example, Myrdal, 1944). Educators and policy makers expected that allowing black and white children to mix in desegregated schools would eliminate stereotypes, decrease hostility, increase interracial friendships, and in general break down the barriers that create racial isolation. Researchers examining this assumption, however, have found the facts to be much more complex.

Reviews of the evidence concerning the effects of interracial contact on racial prejudice have found no conclusive results. A careful and thoughtful review (St. John, 1975) of over 40 studies conducted between 1954 and 1974 finds totally mixed results. Some studies have positive findings, some negative, and some neutral. No consistent patterns were evident even though St. John examined factors related to study design, circumstances of desegregation, and population in an effort to find some order in the data. Reviews by Cohen (1975) and Carithers (1970) come to the same equivocal conclusions. It seems clear that simply placing members of two racial groups together provides no guarantee that the hoped-for outcomes in terms of reduction of racial prejudice and isolation will occur. Apparently, under some conditions of contact, interracial attitudes will improve and racial interaction increase, while under others no change or negative outcomes will be seen.

The clearest implication of this research is that the appropriate focus of future research should not be to determine "the effects of desegregation, but to understand the factors that determine whether the outcome will be positive or negative. A few recent, large-scale studies of the desegregation process have suggested some factors that may be important in ensuring improved race relations. These studies attempt to make some assessment of why race relations were affected in the way that they were. Two factors, the attitudes of teachers and principals, and actual interracial contact, appear to be most consistently related to race relation outcomes. In a large-scale longitudinal study, Gerard and Miller (1975) identified low teacher prejudice as a major factor in the development of positive relations in a desegregation program involving black, Mexican-American and white students. Low teacher prejudice was associated with use of teaching techniques that emphasized interracial contact, suggesting that this facilitation of contact may have been the mechanism by which positive race relations were fostered. An evaluation of desegregation effects in a large group of southern schools (NORC, 1973) supports Gerard and Miller's basic finding. Schools whose principals and teachers took liberal positions on racial issues had students who were more favorable to integration. Also, urban schools that developed programs to improve intergroup relations succeeded in helping white students in particular to accept desegregation. Negative attitudes toward desegregation in elementary schools were found to be related to achievement grouping and classroom segregation within a school. This negative relationship was not found at the high school level. In an in-depth study of schools funded by the

Emergency School Aid Act, Wellisch, Marcus, MacQueen, and Duck (1976) found that schools with segregated seating patterns in desegregated classrooms were less likely to have students mixing across racial lines during recess and lunch than those with mixed seating patterns. A relationship was also found between increased cross-race interaction at lunch and recess and an emphasis on social goals, such as improved student-teacher or student-student relations, by the school principal.

Two factors are important in positively affecting race relations in these three studies. First, there is a significant relationship between positive race relations outcomes and positive attitudes toward race or emphases on social goals (as opposed to purely academic goals) by teachers or principals. Second, all three studies contain data that suggest that the opportunities available for interracial contact in the classroom, either as a part of teaching patterns structured to increase interaction or through integration of seating in the classroom, may be another critical factor.

The most extensive data on factors affecting race relations outcomes in desegregation was collected by the Educational Testing Service in 1974 (Forehand, Ragosta, and Rock, 1976). This survey contains by far the largest number of variables relating to school practices and characteristics that might relate to race relations and the largest number of measures of race relations, and thus provides the opportunity to further examine the factors identified in the previous studies. It uses a national sample consisting of a substantial number of schools and students; most of the other studies were either severely limited in the number and representativeness of schools involved or in

the number or quality of measures relating to race relations. The findings of the ETS report were developed into a comprehensive set of recommendations for implementating a desegregation program which are now accepted by many as standard policy for a desegregation program designed for positive outcomes (Forehand and Ragosta, 1976).

The ETS data were gathered by survey and interview in a study of effective desegregation in 96 elementary schools and 72 high schools. The ETS report identified five major school factors that contribute to positive race relations. These are briefly described below:

1. Teaching methods directed at improving race relations. The most consistent finding of the ETS study was that teaching methods that were oriented toward good race relations produced good race relations. A number of methods were considered in this factor. These included the use of multi-ethnic curricula, teaching of minority history and culture, systematic use of projects on social and attitudinal issues related to race, and assignment of black and white students to work and play together.

2. Evaluation of principal. High schools that had good race relations tended to have principals who were highly rated by their teachers as supportive of all teachers and influential in their districts.

3. Teachers' racial attitudes. Teacher attitudes were related to student racial attitudes only in some cases. In high schools, teacher and principal attitudes were strongly related to attitudes of white students but not of blacks. Racial attitudes of teachers also predicted interracial contact of white students. In elementary schools,

black students perceived racial attitudes in the school as an institution to be positive when teachers' racial attitudes were positive. Principals' racial attitudes seemed to have a direct effect on the racial attitudes of teachers.

4. Support for integration. Institutional support for integration, as measured by the degree to which administrators, teachers and students communicated support, was positively related to race relations.

5. Low conflict and tension. Low conflict and tension was found to be consistently related to good race relations, but the authors note that cause and effect are difficult to determine for these variables.

This paper uses the ETS data to focus on the programmatic interventions that a school can use to improve race relations among its students. This is a somewhat different focus than that of the original study. Many of the conclusions of that study (and of such earlier studies as that by Gerard and Miller, 1975) involve relationships between school conditions and student outcomes, and these relationships have been used to promote programs which attempt to produce the desired school condition. For example, both Forehand et al. and Gerard and Miller find a relationship between teacher prejudice and student race relations. In their summary of the ETS research, Forehand and Ragosta (1976) use that finding to imply that desegregated schools should provide prejudice-reduction workshops for teachers. However, teacher attitudes cannot be changed directly by declaring a policy. The relationship between workshops to reduce teacher prejudice and student race relations is the only one that has relevance for

schools in deciding how to improve race relations, not the relationship between teacher attitudes and student race relations. The same is true for other programs; the observation that schools with certain characteristics have better race relations says nothing about which programs will bring about the desired changes. Such variables as positive evaluations of principals, support for integration among the school staff, and low conflict and tension in the school may be intermediate outcomes of programs, but they are not themselves things that can be directly changed by the school administration. Further, there is always the question of direction of causality; a school with poor race relations may very well produce teacher prejudice, low principal evaluations, low support for integration, and high conflict and tension.

Thus, this paper examines in more detail the effects of the programmatic variables in the ETS survey on race relations, and uses the information from that survey to inform a set of data-based recommendations for desegregated schools. Further, it attempts to draw from this analysis some idea of the categories of interventions that can influence interracial behaviors and attitudes so that predictions can be made about specific programs not directly assessed in the ETS data. The interventions fall into four major classes; attempts to change teacher or principal attitudes by means of workshops; attempts to change student attitudes by providing minority history classes, portraying minorities in positive roles in textbooks and in school positions, and discussing race relations in class; heterogeneous grouping, either within or between classes; and attempting to change student behaviors directly by assigning them to work and play in mixed-racial groups. It was initially predicted that the last

category of intervention, fostering interracial contact, would strongly influence interracial friendships. Social psychological theory concerning contact and friendship (see Amir, 1969) as well as actual field experiments in which students worked in multiracial learning teams (see Slavin, 1978) strongly support a relationship between fostering interracial contact and interracial friendship. It was further predicted that the closer the attitude-change interventions were to students, the greater the effects. Thus, actual class discussion of race relations was presumed to be more effective than multiethnic texts or teacher workshops, which do not directly focus students on examining their racial attitudes.

Method

I. Sample

The ETS data were collected in Spring, 1974. The subjects were fifth- and tenth-grade students; only the tenth-grade data are used in this paper because of the more inclusive set of variables measured in that sample. These data were gathered in 48 high schools in ten southern states in which an earlier study by the National Opinion Research Center (NORC, 1973) had been conducted, plus 23 additional high schools in eight non-southern states. Student questionnaires were given to 2-3 English classes in each school, stratified on percent black. Teacher questionnaires were given to a random selection of ten teachers, and principals were individually interviewed. None of the schools had substantial numbers of students who were neither white nor black, so these students were excluded from all analyses.

Although an average of 55 students in each school were surveyed by ETS, the number in each school varied widely--from 8 to 105. Also,

because of differences in percent minority in each school, some schools had very small numbers of respondents of one race or the other. Analysis was conducted both at the school level, using school means for each race, and at the individual level separately by race. For the school level analysis, any school with fewer than 10 respondents of one race or the other was dropped from the analyses. This left 51 schools; 35 southern and 16 northern. The individual-level analyses, however, used all 2384 respondents who completed all questionnaire items.

II. Variables

There were six dependent variables used in all analyses, all taken from the student questionnaires. Three were considered behavioral and three attitudinal. The questions on which these variables were based are presented below. Some have been slightly reworded to reflect the way the variables were actually coded.

Behavioral Dependent Variables

1. Think for a moment about the three students you talk with most often at this school. Are they the same race as you?
2. Have you ever called a student of a different race on the phone?
3. Would you like to have more friends who are of a different race?

Attitudinal Dependent Variables

4. If you could choose the kind of school you would go to, would you pick one with a mixture of black and white students?
5. In general, do you think that white people are smarter than black people, that black people are smarter than white people, or do you think that a person's color doesn't have anything to do with how smart he is?

6. How uncomfortable do you feel around students of a different race?

Eight independent variables were assessed in the school-level analyses. These are grouped in four categories, as follows. Again, some questions are reworded to reflect actual coding. Items from the teacher questionnaire are marked "TQ," those from student questionnaires, "SQ."

Attempts to Change Teacher Attitudes

1. During this school year, have you taken any in-service training, college courses, workshops, or other teacher education dealing with intergroup relations? (TQ)

Attempts to Change Student Attitudes

2. A number of schools have adopted multiethnic texts which discuss minority-group leaders and portray minority-group characters. Are texts of this type used in your school? (TQ)
3. How often do you have class discussions about race? (TQ)
4. Do minority group history or culture courses exist in this school? (TQ)
5. Do you have a biracial student committee in your school to solve problems that come up because different races are going to the same school? (SQ)

Heterogeneous Grouping

6. Does achievement grouping of classes exist in this school? (TQ)
7. Does achievement grouping within classes exist in this school? (TQ)

Attempts to Change Student Behavior

8. How often has your teacher assigned you to work on schoolwork with a student of another race (SQ)

Three independent variables were analyzed at the individual student level. All are taken from the student questionnaires. Note that the "assigned to work with student of another race" variable is the same question evaluated at the school level. The individual analyses assess the effects of actual experiences that students report having had on their interracial behaviors and attitudes. These experiences are divided into two categories, as follows:

Experiences of Attitude-Change Attempts

1. How often do you have class discussions about intergroup relations?

Experiences of Interracial Contact

2. How often have you played with a student of another race on a team at school?
3. How often has your teacher assigned you to work on schoolwork with a student of another race?

III. Analyses

Both school level and individual level analyses were used to assess the impact of the programs. School-level analyses gave aggregate effects of school policies or practices, while the individual analyses permitted a more direct determination of the effects of the policies by differentiating between students who actually received the treatment intended for them and those who did not. For example, even if many teachers in a school say that they discuss race relations in

class, some students will actually experience those discussions and some will not. Finding the difference between these students gives an excellent way to determine the real effect of class discussions on race relations.

In the school-level analyses, each of the eight school-level independent variables were regressed on the six dependent variables, controlling for school percent black, mean black SES (socioeconomic status), mean white SES, and region (South or non-South). In the individual-level analyses, the three individual-level independent variables were regressed on the six dependent variables, controlling for school percent black, black SES, white SES, and region, and individual SES and sex. The measure of SES was a scale composed of four items from the student questionnaire: mother's education, "Does family receive a newspaper?", "Does family own their home?", and "Do you live with both of your parents?"

The analyses for all variables were conducted by means of separate regression equations for each independent variable on each dependent variable, including the control variables. The total R^2 for each of these equations was compared to that for the control variables alone, and the resulting incremental R^2 was tested for statistical significance. This is a somewhat more conservative procedure than that used in the original ETS report, where standardized regression coefficients rather than incremental R^2's are tested for statistical significance.

Results

Table 1 presents the means and standard deviations for the independent, dependent, and control variables. The range of possible values

for each variable is given with an asterisk by the score that is considered "high" on the variables where the coding is not obvious. In the case of the independent variables, "high" refers to the presence of the school practice named. For example, a "1" for "teacher workshops" indicates that workshops were held, while a "2" for "biracial advisory committee" indicates that such a committee existed in the school. For the dependent variables, "high" refers to a response indicating positive race relations. The negatively scored variables were reversed for analysis, so that a positive beta in Table 2 indicates that existence of the school practice was associated with higher race relations scores.

Insert Tables 1 and 2 About Here

Table 2 summarizes the school-level analyses for whites. The pattern of results is clear. The one variable that has a strong and consistent positive effect on race relations is "students work with other races." This is the aggregation of the individual student responses to the question, "How often has your teacher assigned you to work on schoolwork with a student of another race?" This variable had significant effects on five of the six dependent variables at or beyond the .01 level of significance. The only other variable to have a positive effect on more than one variable was class discussions on race, which is from the following question on the teacher's questionnaire: "How often do you have class discussions about race?" This effect was found for two of the three behavioral dependent variables ("Are your three best friends the same race as you?" and

"Have you ever called a student of a different race on the phone?"), but none of the attitudinal variables. Other effects on the "three best friends" variable were found for teaching of minority history, teacher workshops on race relations, and achievement grouping within classes. This last finding was unexpected, as many researchers have hypothesized negative effects of achievement grouping on race relations, but this usually refers to achievement grouping between classes, or tracking.

Insert Table 3 About Here

For blacks, Table 3 shows that there were few significant effects on race relations for any of the school practices. The only variable influenced by any school practices was "have you ever called a student of a different race on the phone?" "Students work with other races" had a strong effect on that variable for blacks, and "teacher workshops" had a smaller but still significant effect. These effects could be indirectly due to the effects of school practices on whites, as whites that call blacks on the telephone are likely to be called by them.

Insert Tables 4-5 About Here

Tables 4-5 depict the findings of the individual-level analyses. The tables show few differences in racial attitudes or behaviors between students who report having discussed race relations in class and those who do not. With such a large sample, very small effects are significant, so a .01 criterion of significance was applied to the individual-level data. Significant effects were found for discussion

of race relations on "phoned," "want more friends," and "attitude toward integration" for whites. On the other hand, being on a sports team with a member of another race was significantly related to all of the dependent variables for whites. All of these effects are at the .001 level of confidence; only one of the "discussion" effects was significant at that level. For blacks, there were no significant effects of class discussion, and the "team" and "work with" variables had significant effects ($p < .001$) on all of the dependent variables except "Are blacks and whites equally smart?" and "Are you comfortable with students of a different race?" No effects were found for the "equally smart" variable, almost certainly due to a ceiling effect for blacks on this variable; 92% of black respondents agreed that blacks and whites are equally smart. For the "comfortable" variable, "team" effects were found, but not "work together" effects.

Overall, the individual-level analyses show that the "team" and "work with" variables, both of which involve actual interaction, are by far the greatest predictors of positive interracial attitudes and behaviors. Even where the "class discussion" variable had significant effects on race relations variables, the sizes of these effects are dwarfed by those of the interracial interaction variables.

Discussion

There is a general feeling among many practitioners and an inference made by many researchers (e.g., Forehand and Ragosta, 1976) that there are many ways to improve race relations in desegregated schools, and that the key is a school-wide concern with making desegregation

work. Millions of dollars are spent each year through the Office of Education's General Assistance Centers to attempt to improve the attitudes of school staffs toward integration and toward minority students, and to give them ways of handling racial heterogeneity in their schools. However, this report finds that some practices are much more effective than others in improving race relations in desegregated schools. Put simply, the practices that most consistently affect interracial attitudes and behavior are those that directly involve students, as opposed to teachers, and more specifically structure black-white interaction. Multicultural texts, workshops for teachers, and biracial advisory committees do not change the way that students interact, and they have few effects (if any) on interracial behaviors and attitudes. Among the attempts to change student attitudes, class discussions of race relations are closest to students, and they have some effects on interracial behaviors for whites, although not on student attitudes. However, students who work with members of another race are far more likely than those who do not to have positive relationships with them. Interestingly, the only independent variables to have positive effects on attitudes are those that require racial interaction; the variables directed at student attitudes, such as "discussions of race relations" and "minority history," do not have such effects, although the "discussions" variable does have effects on two of the behavioral dependent measures. Teacher workshops and achievement grouping have even fewer relationships to improved race relations.

The fact that the school-level analyses for blacks do not show effects of any of the independent variables on any of the dependent

variables except the "telephoning" question may be due to a relative lack of prejudice toward whites among the blacks in this sample. As Table 1 indicates, blacks express more positive interracial attitudes and behaviors than whites on every measure. Seventy percent of blacks favor integration, versus 54% of whites. Thirty-three percent of blacks claim white friends, while only 26% of whites claim a black one. It may be that only very strong interventions are likely to change blacks' already tolerant attitudes in a positive direction, and that the limitations on blacks' interactions with whites may come more from the whites' tendency not to interact with blacks than from any reluctance on the part of the blacks. However, it should be noted that the ETS sample is mostly southern; thirty-five of the fifty-one schools are from the ten southern states. Black attitudes are generally more positive than white in both southern and non-souther. schools, but the difference is larger in the South.

The major finding of this study--that actual interaction among students is the strongest influence on students' interracial behaviors and attitudes--supports a long-held idea in social psychology that interpersonal interaction (particularly if it is cooperative and between persons of equal status) is the key to positive intergroup relations (Allport, 1954; Amir, 1969). A growing body of field research in classrooms has shown that when students of different races are assigned to multiracial cooperative learning teams, they grow in liking for one another more than students in traditional classes (Aronson et al., 1975; DeVries, Edwards, and Slavin, 1978; Johnson and Johnson, 1978; Slavin, 1978). Thus, the field experimental research has

established a clear effect of multiracial teams on race relations. The present study found strong effects on race relations due to students working in cooperative groups, sports teams, and classroom work groups, independently supporting the experimental findings. However, this study goes on to suggest that not only is interracial interaction one effective way to improve race relations among students, it is clearly the most effective way among the programs assessed in the ETS report, which make up the great majority of the programs that integrated schools have used to deal with relations among students. This study may also call into question the importance for race relations of the particular forms of the learning team technique. It suggests that one-to-one contact between black and white students, whatever the conditions, may be enough to significantly improve race relations.

One problem characteristic of the correlational study is that of direction of causality. It is possible that the practices found to be effective in this study are consequences of positive race relations rather than causes of them. However, in this case such an explanation is unlikely. If good race relations allowed or encouraged schools to structure black-white interactions on school tasks, it would seem likely that they would also increase the chance that the school might provide minority history, establish bi-racial advisory committees, abolish tracking, and so on, yet none of these variables were positively related to the dependent variables. Further, the experimental evidence linking cooperative bi-racial interaction to positive race relations suggests that specifically fostering interracial contact increases positive interracial attitudes and behaviors.

The research agenda suggested by these findings is clear. Before further efforts and monies are committed to programs designed to improve student race relations in desegregated schools, there should be a careful, scientific assessment of the effects those programs have on students. Experimental comparisons will provide the most convincing information on what is effective and what is not. Further surveys that focus more clearly on the practices that change race relations rather than on the correlates of positive race relations would also provide valuable information. If such further studies find effects like those reported here, the direction of current practice with regard to desegregated schools needs to be sharply changed. The focus on human relations training for teachers, minority history and multiethnic texts, and other interventions that do not involve a strong component of interracial contact in a cooperative setting is not supported in this study, and a new focus on such interaction is emphasized. If we are to take our efforts to improve race relations in desegregated schools seriously, we cannot continue to use techniques of little proven value and ignore techniques that have been shown to be effective.

References

Allport, G. The Nature of Prejudice. Cambridge, Mass.: Addison-Wesley, 1954.

Amir, Y. Contact hypothesis of ethnic relations. Psychological Bulletin, 1969, 71, 319-342.

Aronson, E., Blaney, N., Sikes, J., Stephan, G., and Snapp, M. The Jigsaw route to learning and liking. Psychology Today, 1975, 43-50.

Carithers, M. W. School desegregation and racial cleavage, 1954-1970: A review of the literature. Journal of Social Issues, 1970, 26, 24-37.

Cohen, E. G. The effects of desegregation on race relations. Law and Contemporary Problems, 1975, 39, 271-299.

DeVries, D. L., Edwards, K. J., and Slavin, R. E. Biracial learning teams and race relations in the classroom: Four field experiments using Teams-Games-Tournament. Journal of Educational Psychology, 1978, 70, 356-362.

Forehand, G., Ragosta, M. and Rock, D. Conditions and processes of effective school desegregation. Final report, U.S. Office of Education, Department of Health, Education, and Welfare. Princeton, New Jersey: Educational Testing Service, 1976.

Forehand, G. and Ragosta, M. A Handbook for Integrated Schooling. U.S. Office of Education, 1976.

Gerard, H. B., and Miller, N. School Desegregation: A Long-Range Study. New York: Plenum Press, 1975.

Johnson, D. W., and Johnson, R. T. Effects of cooperation, competition, and individualism on interpersonal attraction among heterogeneous peers. Paper presented at the Annual Convention of the American Psychological Association, San Francisco, 1977.

Myrdal, G. An American Dilemma. New York: Harper and Brothers, 1944.

National Opinion Research Center. Southern schools: An evaluation of the effects of the Emergency School Assistance Program and of school desegregation. Volume I. U.S. Office of Education, Department of Health, Education, and Welfare. Chicago: NORC, The University of Chicago, 1973.

St. John, N. H. School Desegregation: Outcomes for Children. New York: John Wiley and Sons, 1975.

Slavin, R. E. Multiracial student team instructional programs and race relations in desegregated schools. Paper presented at the annual convention of the American Educational Research Association, Toronto, 1978.

Wellisch, J., Marcus, A., MacQueen, A., and Duck, G. An in-depth study of Emergency School Aid Act (ESAA) schools: 1974-1975. U.S. Office Education, Department of Health, Education, and Welfare. Santa Monica, CA: System Development Corporation, 1976.

Table 1. Means, Standard Deviations, and Possible Range for all Variables

Variable	Range	Whites (N=51) Mean	S.D.	Blacks (N=51) Mean	S.D.	Whites (N=1387) Mean	S.D.	Blacks (N=1004) Mean	S.D.
Independent Variables									
1. Three friends same race?	1-2*	1.26	.16	1.33	.12	1.21	.41	1.32	.47
2. Phoned other race?	1*-2	1.59	.19	1.47	.14	1.63	.49	1.52	.50
3. Want more friends of other race?	1*-2	1.44	.14	1.32	.15	1.42	.53	1.30	.48
4. Attitude toward integration	1-2*	1.54	.18	1.70	.16	1.57	.49	1.72	.45
5. Blacks and whites equally smart?	1-2*	1.75	.12	1.91	.07	1.76	.42	1.92	.27
6. Comfortable with other race?	1-4*	2.93	.27	3.13	.28	2.94	.94	3.17	1.09
Control Variables									
1. Percent black		39.56	16.91	39.56	16.91	32.11	16.75	45.63	20.56
2. Black SES		.87	.27	.87	.27	.85	.29	.84	.26
3. White SES		1.28	.18	1.28	.18	1.27	.17	1.26	.22
4. Region (1=South, 2=Non-South)		1.31	.47	1.31	.47	1.21	.41	1.18	.39
5. Individual SES						1.21	1.66	.83	1.46
6. Sex (1=Female, 2=Male)						1.52	.50	1.56	.50
Independent Variables									
1. Teacher workshops	1*-2	1.80	.15	1.80	.15				
2. Multi-ethnic texts	1*-3	2.01	.34	2.01	.34				
3. Class discussions on race	1*-4	3.15	.35	3.15	.35				
4. Minority group history	1*-2	1.41	.35	1.41	.35				
5. Biracial advisory committee	1-2*	1.37	.20	1.40	.20				
6. Achievement grouping classes	1*-2	1.42	.27	1.42	.27				
7. Achievement grouping-within classes	1*-2	1.38	.22	1.38	.22				
8. Work with other races	1*-5	3.56	.41	3.20	.35	3.61	1.22	3.10	1.51
9. Played on team	1*-5					2.46	1.39	2.25	1.37
10. Discussed race relations	1*-5					3.30	.98	3.17	1.09

* Response indicating positive race relations for dependent variables, presence of the school practice named for independent variables.

Table 2. White Students: Standardized Regression Coefficients and Incremental R^2 for School-Level Analyses, Controlling for Percent Black, Black SES, White SES, and Region.

Independent Variables	Dependent Variables: Three Friends	Phoned	More Friends	Integration Attitude	Equally Smart	Comfortable
Control Variables Only						
R^2	.478	.278	.090	.221	.159	.028
Workshops						
B	+.227	+.256	-.007	+.079	-.127	-.016
R^2 inc.	.044*	.055	.000	.005	.014	.010
Multi-Ethnic						
B	+.039	+.132	+.074	+.210	-.093	+.214
R^2 inc.	.001	.013	.004	.032	.006	.034
Class Discussions						
B	+.195	+.293	+.296	+.226	+.225	+.122
R^2 inc.	.029*	.066*	.068	.039	.037	.011
Minority History						
B	+.230	+.149	-.022	+.172	-.002	+.106
R^2 inc.	.029*	.012	.000	.016	.000	.006
Committee						
B	+.015	+.072	-.074	-.045	-.033	-.105
R^2 inc.	.000	.004	.001	.002	.001	.009
Group Classes						
B	+.099	+.133	+.075	+.075	+.089	+.195
R^2 inc.	.010	.017	.005	.005	.008	.037
Group Within						
B	+.145	+.083	+.002	-.003	+.076	+.167
R^2 inc.	.020*	.007	.000	.000	.005	.026
Work With						
B	+.325	+.477	+.548	+.448	+.264	+.505
R^2 inc.	.086**	.184***	.243***	.162**	.056	.206**

*p < .05
**p < .01
***p < .001

Table 3. Black Students: Standardized Regression Coefficients and Incremental R^2 for Schools-Level Analyses, Controlling for Percent Black, Black SES, White SES, and Region.

Independent Variables	Dependent Variables: Three Friends	Phoned	More Friends	Integration Attitude	Equally Smart	Comfortable
Control Variables Only						
R^2	.089	.096	.334	.238	.079	.107
Workshops						
B	+.117	+.354	-.114	-.011	-.100	+.136
R^2 inc.	.012	.106*	.011	.000	.009	.016
Multi-Ethnic						
B	+.018	+.267	+.066	+.184	+.185	+.172
R^2 inc.	.000	.052	.003	.025	.025	.022
Class Discussions						
B	+.182	-.072	+.101	+.006	-.178	-.090
R^2 inc.	.026	.004	.008	.000	.025	.006
Minority History						
B	+.219	+.198	+.040	+.299	-.282	+.090
R^2 inc.	.026	.021	.001	.049	.043	.004
Committee						
B	+.097	-.186	+.196	-.154	+.125	-.166
R^2	.008	.030	.034	.021	.014	.024
Group Classes						
B	+.052	-.069	-.110	+.203	-.131	+.124
R^2 inc.	.003	.004	.012	.040	.017	.015
Group Within						
B	+.092	-.009	-.162	+.106	-.195	+.089
R^2 inc.	.008	.000	.025	.011	.036	.007
Work With						
B	+.144	+.518	+.161	+.168	+.146	-.007
R^2 inc.	.017	.216***	.021	.023	.017	.000

*p < .05
**p < .01
***p < .001

Table 4. White Students: Standardized Regression Coefficients and Incremental R^2 for Individual-Level Analyses, Controlling for School Percent Black, Black SES, White SES, and Region, and Individual SES and Sex.

Independent Variables	Three Friends	Phoned	More Friends	Integration Attitude	Equally Smart	Comfortable
Control Variables						
Only R^2	.049	.067	.017	.047	.067	.017
Discussed Race						
B	+.064	+.070	+.131	+.077	-.009	+.065
R^2 inc.	.004	.005*	.017**	.006*	.000	.004
On Team With						
B	+.141	+.229	+.195	+.177	+.151	+.181
R^2 inc.	.019**	.051**	.037**	.030**	.022**	.032**
Worked With						
B	+.216	+.191	+.169	+.158	+.095	+.133
R^2 inc.	.046**	.036**	.028**	.024**	.009**	.017**

*$p < .01$
**$p < .001$

Table 5. Black Students: Standardized Regression Coefficients and Incremental R^2 for Individual Level Analyses, Controlling for School Percent Black, Black SES, White SES, and Region, and Individual SES and Sex.

Independent Variables	Three Friends	Phoned	More Friends	Integration Attitude	Equally Smart	Comfortable
Control Variables						
Only R^2	.009	.024	.023	.023	.006	.020
Discussed Race						
B	+.047	+.078	+.065	+.063	-.074	-.041
R^2	.002	.006	.004	.004	.005	.002
On Team With						
B	+.148	+.215	+.152	+.190	+.079	+.102
R^2	.021**	.045**	.023**	.035**	.006	.010*
Worked With						
B	+.129	+.112	+.133	+.120	.000	-.001
R^2	.017**	.013**	.018**	.014**	.000	.000

*$p < .01$
**$p < .001$